What is claimed is:

1. A semiconductor light emitting diode comprising:

a substrate on which an n-type semiconductor layer, an active layer, and a p-type semiconductor layer are sequentially stacked; and

a p-type electrode, which includes a first metallic layer formed on the p-type semiconductor layer and a second metallic layer that is formed on the first metallic layer and reflects light generated from the active layer.

2. The semiconductor light emitting diode of claim 1, wherein the first metallic layer has a contact resistance with the p-type semiconductor layer lower than that of the second metallic layer, and the second metallic layer has light reflectivity higher than that of the first metallic layer.

3. The semiconductor light emitting diode of claim 1, wherein the first metallic layer is formed of metal selected from palladium (Pd), platinum (Pt), and indium tin oxide (ITO).

4. The semiconductor light emitting diode of claim 3, wherein the thickness of the first metallic layer is between 1 nm and 10 nm inclusive.

5. The semiconductor light emitting diode of claim 1, wherein the second metallic layer is formed of metal selected from silver (Ag) and aluminum (Al).

6. The semiconductor light emitting diode of claim 5, wherein the thickness of the second metallic layer is more than 50 nm.

7. The semiconductor light emitting diode of claim 1, wherein the first and second metallic layers are thermally-processed in an nonoxygen atmosphere at a temperature between 80°C and 350°C inclusive.

8. The semiconductor light emitting diode of claim 1, wherein the n-type semiconductor layer, the active layer, and the p-type semiconductor layer are GaN based III-V nitride compound.

9. The semiconductor light emitting diode of claim 8, wherein the active layer is an n-type material layer $In_xAl_yGa_{1-x-y}N$ ($0 \le x \le 1, 0 \le y \le 1, and\ x + y \le 1$) based n-type material, or an undoped material layer.

10. A method for manufacturing a semiconductor light emitting diode, the method comprising:

(a) sequentially stacking an n-type semiconductor layer, an active layer, and a p-type semiconductor layer on a substrate; and

(b) forming a p-type electrode that electrically contacts the p-type semiconductor layer, on the p-type semiconductor layer;

wherein step (b) includes sequentially stacking first metal and second metal on the p-type semiconductor layer and forming a first metallic layer that makes ohmic contact with the p-type semiconductor layer and a second metallic layer that reflects light.

11. The method of claim 10, wherein step (b) further includes thermally-processing the first and second metallic layers in an nonoxygen atmosphere at a temperature between 80°C and 350°C inclusive and stabilizing the first and second metallic layers.

12. The method of claim 10, wherein the first metal has a contact resistance with the p-type semiconductor layer lower than that of the second metal, and the second metal has light reflectivity higher than that of the first metal.

13. The method of claim 10, wherein the first metal is one selected from the group consisting of palladium (Pd), platinum (Pt), and indium tin oxide (ITO).

14. The method of claim 13, wherein the thickness of the first metallic layer is between 1 nm and 10 nm inclusive.

15. The method of claim 10, wherein the second metal is one selected from the group consisting of silver (Ag) and aluminum (Al).

16. The method of claim 15, wherein the thickness of the second metallic layer is more than 50 nm.

17. The method of claim 10, wherein the n-type semiconductor layer, the active layer, and the p-type semiconductor layer are GaN based III-V nitride compound.

18. The method of claim 17, wherein the active layer is an n-type material layer $In_xAl_yGa_{1-x-y}N$ $(0 \leq x \leq 1, 0 \leq y \leq 1, and\ x+y \leq 1)$ based n-type material, or an undoped material layer.